

CLAIMS

1. A method to determine a next data rate in a mobile station of a wireless
2 system, comprising:
receiving a congestion indicator; and
4 generating the next data rate as a function of data rate history and
congestion indicator history.
2. The method as in claim 1, wherein generating the next data rate further
2 comprises:
comparing at least one previous data rate to a target data rate for the
4 mobile station; and
in response to a first result of comparing determining the next data rate
6 by adjusting at least one data rate
3. The method of claim 1, wherein adjusting the at least one previous data rate
2 performs a statistical analysis.
4. The method of claim 1, wherein generating the next data rate further
2 comprises:
counting a number of consecutive same value congestion indicators;
4 and
if the number of consecutive same value congestion indicators is less
6 than a predetermined maximum number, determining the next
data rate by maintaining the at least one previous data rate.
5. The method as in claim 4, wherein generating the next data rate further
2 comprises:
if the number of consecutive same value congestion indicators is equal to
4 or greater than the maximum number, determining the next data
rate by adjusting the at least one previous data rate.

6. The method as in claim 5, wherein for a first congestion condition if the
2 previous data rate is greater than the target data rate, adjusting comprises
decreasing.
7. The method as in claim 6, wherein for a second congestion condition if the
2 previous data rate is less than the target data rate, adjusting comprises
increasing.
8. The method as in claim 1, wherein the next data rate is generated at the
2 mobile station and is independent of other mobile stations.
9. The method as in claim 1, wherein the maximum number is predetermined.
10. The method as in claim 1, wherein the congestion indicator comprises
2 multiple bits.
11. The method as in claim 10, wherein at least one of the multiple bits
2 corresponds to an adjustment indicator, and at least one of the multiple bits
corresponds to a target indicator, the method further comprising:
4 for a first value of the target indicator, adjusting at least one previous
data rate according to the adjustment indicator; and
6 for a second value of the target indicator, comparing at least one
previous data rate to a target rate for the mobile station, wherein in
8 response to a first result of comparing determining the next data
rate by adjusting at least one previous data rate according to the
10 adjustment indicator.
12. The method as in claim 11, wherein for a first value of the adjustment
2 indicator adjusting at least one previous data rate according to the
adjustment indicator comprises increasing at least one previous data rate,
4 and
wherein for a second value of the adjustment indicator adjusting at least one
6 previous data rate according to the adjustment indicator comprises
decreasing at least one previous data rate.

13. A mobile station apparatus, comprising;

- 2 means for receiving a congestion indicator and determining a congestion
condition therefrom;
- 4 data rate control means for determining a next data rate as a function of
a history of congestion indicators and as a function of data rate
6 history for the mobile station.

14. The apparatus as in claim 13, further comprising:

- 2 comparison means for comparing a previous data rate to a target rate for
the mobile station,
- 4 wherein the data rate control means generates a next data rate by adjusting the
previous data rate in response to a first result of comparing the previous
6 data rate to the target data rate.

15. The apparatus as in claim 13, further comprising:

- 2 counting means for counting a number of consecutive same value
congestion indicators,
- 4 wherein the data rate control means generates the next data rate by maintaining
the previous data rate in response to a second result of comparing the
6 previous data rate to the target data rate when the number of consecutive
same value control indicators is less than a maximum number.

16. The apparatus as in claim 15, wherein the data rate control means

- 2 generates the next data rate by adjusting the previous data rate when the
number of consecutive same value control indicators is equal to or greater than
4 the maximum number.